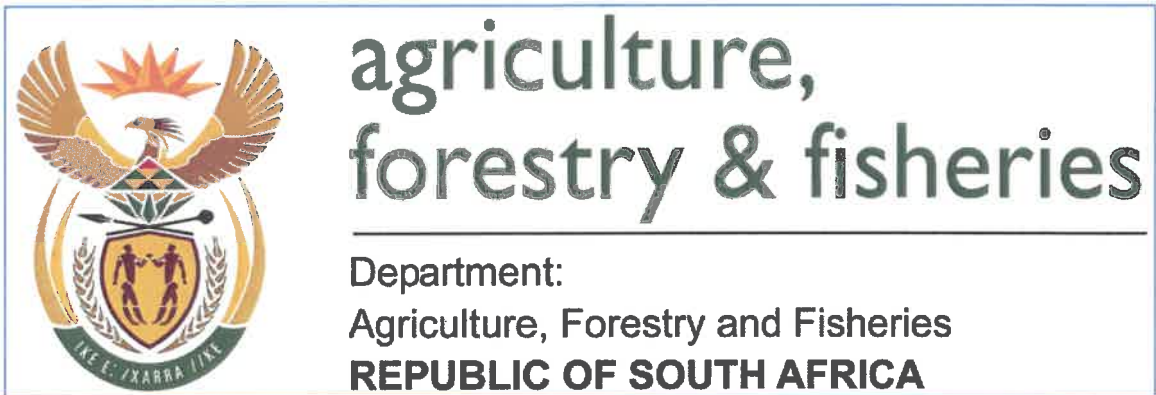


Foot and Mouth Disease: Molemole Outbreak Follow-up Report

25 March 2020



Report compiled by:
Directorate: Animal Health

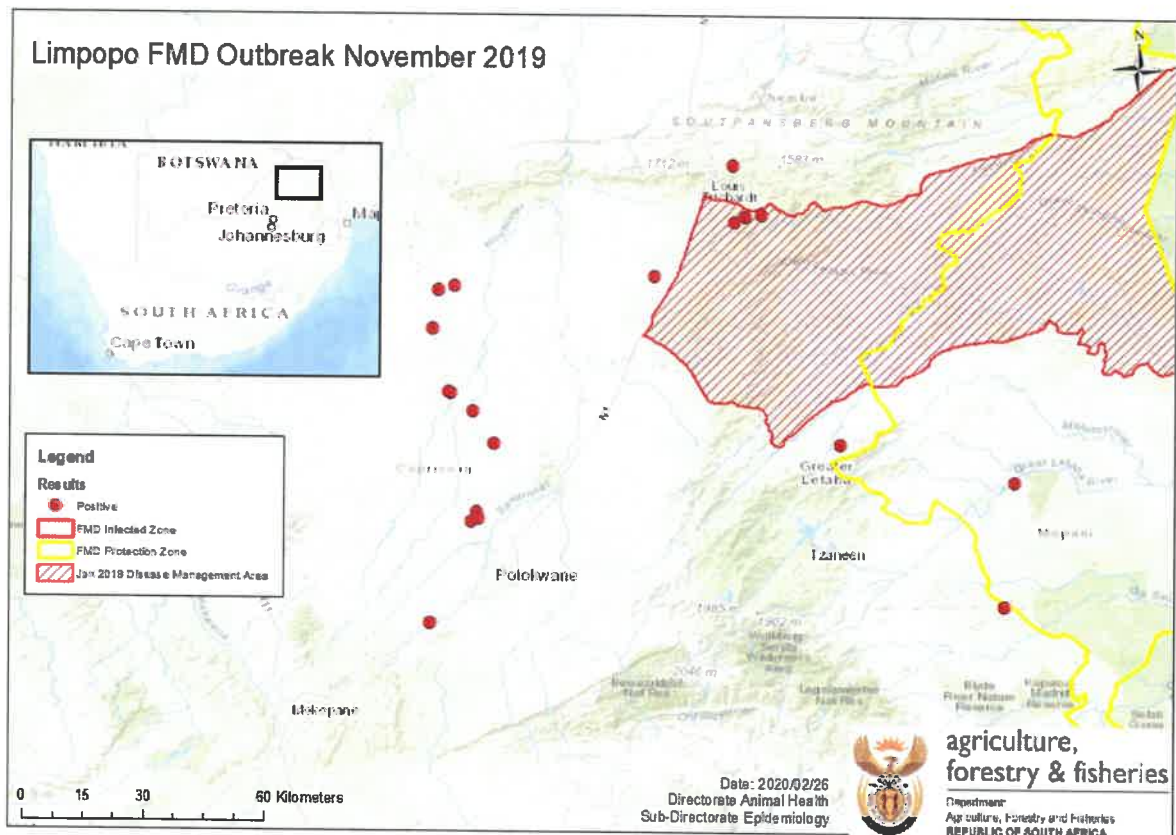
1. Introduction and summary

An outbreak of FMD in the previous FMD free zone was detected on 1 November 2019. Since then, a total number of 19 positive locations were identified through trace-back and trace-forward exercises, with the last positive location reported to the OIE on 26 February 2020.

2. Affected locations

The 19 positive locations include commercial cattle breeding farms and cattle feedlots, as well as a community farm. The clinically affected animals are cattle in all cases. The map hereunder shows the locations of the affected premises within the Limpopo Province.

Map 1: FMD positive locations in Limpopo Province



Note related to the map above - Some location are in such close proximity to each other, that they appear as one point on the map above

3. Control measures implemented

3.1 Movement control:

All premises confirmed positive for FMD were immediately placed under quarantine and no movement of cloven hoofed livestock or their products are allowed off these premises. Biosecurity measures are also implemented on the affected premises to prevent the spread of the disease by means of fomites.

A large number of locations were identified with possible links to the infected premises. All linked premises were placed under precautionary quarantine until they had been followed up and tested. These included premises which received animals from specific auctions, or from known positive locations, and also premises that supplied animals to specific auctions. Direct neighbours of known positive premises and home villages of the workers on positive premises were also identified as “linked premises”.

The movement of cloven hoofed animals and their products out of the FMD controlled zones in Limpopo, Mpumalanga and KwaZulu Natal Provinces is still applied, as well as the movement control out of the Disease Management Area declared during the January 2019 FMD outbreak in Vhembe district of Limpopo Province.

During initial stages of the outbreak, all farmers were encouraged to limit the movement of cloven hoofed animals until the extent of the outbreak had been fully determined. As an ongoing precaution, farmers are still advised to obtain a veterinary health declaration to confirm the absence of clinical signs of FMD on the premises of origin and in the animals to be moved.

3.2 Slaughter of animals on affected premises:

Most of the affected premises contain feedlot or commercial cattle, where the animals were intended for eventual slaughter. Animals on affected properties may be presented for normal slaughter once 6 months have passed after clinical end point on the premises. Farm owners can apply for early slaughter at approved abattoirs that are designated specifically for this purpose. The risk mitigation for early slaughter includes disposal and/or processing of the heads, feet and offal. FMD positive premises remain under quarantine until all animals on the premises had been slaughtered, or tested negative for FMD on two rounds of testing at least 14 days apart.

To date, 8 farms have been granted approval to continue with early slaughter at 2 designated abattoirs. More than 7 000 cattle from premises under quarantine have been slaughtered since 20 January 2020.

3.3 No vaccination

The use of FMD vaccine has not been indicated in controlling this current outbreak, as the main means of disease spread has been through transport of animals between commercial farms. When outbreaks spread contiguously, vaccination may be appropriate, especially where there are no fenced farm boundaries such as in communal areas. In the current outbreak, there are defined infected properties with fences; moreover, this outbreak is demonstrated to spread by “jumping” with areas in between not affected.

3.4 Ban on gathering of animals

Since all the affected properties were linked directly or indirectly to specific auctions, a Government Gazette notice was issued on 4 December 2019, temporarily prohibiting such gatherings. This prohibition was reconsidered once more than 90% of the primary contact premises linked to the auctions had been visited and their status determined. The prohibition on the gathering of cloven hoofed animals from two or more properties, for distribution to two or more properties, was lifted on 18 February 2020.

4. Epidemiological investigation

The outbreak was confirmed on 1 November 2019 by Polymerase Chain Reaction (PCR) at Transboundary Animal Disease – Onderstepoort Veterinary Research of the Agricultural Research Council. The virus responsible for the outbreak is a SAT 2 serotype and is closely related to the virus responsible for the outbreak that occurred in January 2019, as well as the outbreaks in the FMD protection zone in May and August 2018.

All properties with possible links to positive locations or to specific auctions were investigated to confirm their status with regards to FMD. These properties were placed under precautionary quarantine and samples were collected from a representative number of animals and subjected to serological tests, using the Solid Phase Competition ELISA. Animals on linked locations were clinically inspected and, if any lesions were found that may indicate FMD, tissue samples were also collected and tested by means of Polymerase Chain Reaction (PCR).

All affected properties could be linked directly or indirectly to four specific cattle auctions which took place in September and October 2019 at two auction venues. Backward and forward tracing from these auctions and known positive locations identified just over 160 locations as being possible links. Follow-up investigations are continuing and precautionary quarantine has already been lifted on 127 of the linked locations.

5. Surveillance activities

Various surveillance activities for FMD are routinely conducted in South Africa and have continued during and following the Vhembe outbreak in January 2019 and the Molemole outbreak in November 2019. Together, all of these surveillance activities result in a comprehensive surveillance system able to detect Foot-and-mouth disease (FMD), should it occur in the Free Zone or the Protection Zone.

5.1 Continuous Sero-survey of the Protection Zone and the High Surveillance Area of the Free Zone

The FMD Continuous Survey is an active targeted surveillance programme, which was started in April 2015, and amended in April 2018. The survey targets the Protection Zone without vaccination, as well as the FMD High Surveillance Area (which is part of the (suspended) Free Zone). These are the highest risk areas for entry of the disease into the Free Zone, due to being adjacent to the Kruger National Park and international borders. The survey is run on a continuous basis to allow for early detection should there be any disease occurrence in the Protection Zone or the High Surveillance Area. At each sampling point, clinical examination is done and serum samples are collected for serology. A total of 270 locations were sampled since January 2019. All locations were found to be free of FMD.

5.2 Serological testing done for export purposes (in the Free Zone)

Serological testing of cattle and other species is periodically done for export purposes (when required by the importing country). This is in the Free Zone, and also forms part of the surveillance system as passive surveillance. From January 2019 to March 2020, a total of 5 461 animals were tested (on 169 different occasions), and species tested included cattle, sheep, giraffe, buffalo, pigs and springbok. All results were negative.

5.3 Serological testing of buffalo in the Free Zone

According to the Buffalo Protocol of 2002, only FMD free buffalo may be kept in the Free Zone, on farms registered for the keeping of buffalo. Furthermore, all buffalo must be tested for FMD prior to any movement being permitted. Buffalo are also tested at the owner's request for herd screening purposes from time to time. In this way, a large number of buffalo are tested annually from all over the country. This forms part of the surveillance system as passive surveillance. Between January 2019 and March 2020, buffalo have been tested for this purpose at 840 locations, with a total of 6 502 individual buffalo having been tested. All were found negative.

5.4 Clinical surveillance and disease investigations of any suspect cases or illegally moved animals (whole country)


FMD is a controlled disease in accordance with South African legislation, and anyone who is aware of or suspects the occurrence of FMD, is required to report that suspicion to the local state veterinarian. This occurs periodically, and when it happens such reports are followed-up by clinical inspection and by testing as appropriate. In the period from January 2019 to March 2020, 64 clinical suspicions were followed up and were all found to be negative for FMD. These suspicions were reported in 6 of the 9 Provinces, and in cattle, sheep or goats.

6. Trade implications

Most trade partners have retained the negotiated agreements for safe commodities, based on the guarantees provided for the processing to ensure inactivation of the virus. South Africa is also confident to certify for the safety of pork products from known FMD free pig compartments.

7. Awareness

The Department, together with the Provincial Veterinary Services, has been conducting awareness on FMD clinical signs and biosecurity measures in Limpopo Province from early December and this initiative is continuing. Awareness was already conducted in 18 villages in the Molemole area and also during 5 farmers' days. Frequent official media statements were also released to keep the farming communities, livestock industry and general public updated on the progress made in the FMD outbreak control.


Director Animal Health
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